

Application No. 10/624,963  
July 25, 2006  
Page 2

### Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-104. Cancelled.

105. (Currently Amended) ~~The system of claim 211, wherein the whitening compound is~~ A cleaning system for teeth, comprising:

a toothbrush having a cleaning surface, the toothbrush comprising a source of electromagnetic radiation configured to direct polychromatic electromagnetic radiation toward the cleaning surface, wherein the polychromatic electromagnetic radiation consists essentially of wavelengths from 300 to 750 nanometers, wherein an output configuration of the source of electromagnetic energy is relatively low such that electromagnetic radiation can be emitted toward the cleaning surface of the toothbrush during brushing to enhance cleaning of the teeth when used in combination with a dentifrice; and

a dentifrice comprising a photosensitive agent dispersed throughout the dentifrice and including a whitening peroxy compound, the dentifrice being adapted to be dispersed over a target surface and to transmit the polychromatic electromagnetic radiation, whereby during use a significant portion of the dispersed photosensitive agent over the target surface receives the polychromatic electromagnetic radiation, thus enabling the significant portion of the dispersed photosensitive agent to react.

106. (Currently Amended) ~~The system of claim 104, wherein the dentifrice comprises~~ A cleaning system for teeth, comprising:

a toothbrush having a cleaning surface, the toothbrush comprising a source of electromagnetic radiation configured to direct polychromatic electromagnetic radiation toward the cleaning surface, wherein the polychromatic electromagnetic radiation consists essentially of wavelengths from 300 to 750 nanometers, wherein an output configuration of the source of electromagnetic energy is relatively low such that electromagnetic radiation

Application No. 10/624,963

July 25, 2006

Page 3

can be emitted toward the cleaning surface of the toothbrush during brushing to enhance cleaning of the teeth when used in combination with a dentifrice; and

a dentifrice comprising a photosensitive agent dispersed throughout the dentifrice, the dentifrice comprising about 1.5% peroxide and being adapted to be dispersed over a target surface and to transmit the polychromatic electromagnetic radiation, whereby during use a significant portion of the dispersed photosensitive agent over the target surface receives the polychromatic electromagnetic radiation, thus enabling the significant portion of the dispersed photosensitive agent to react.

107. (Currently Amended) ~~The system of claim 211, wherein the whitening compound is~~ A cleaning system for teeth, comprising:

a toothbrush having a cleaning surface, the toothbrush comprising a source of electromagnetic radiation configured to direct polychromatic electromagnetic radiation toward the cleaning surface, wherein the polychromatic electromagnetic radiation consists essentially of wavelengths from 300 to 750 nanometers, wherein an output configuration of the source of electromagnetic energy is relatively low such that polychromatic electromagnetic radiation can be emitted toward the cleaning surface of the toothbrush during brushing to enhance cleaning of the teeth when used in combination with a dentifrice; and

a dentifrice comprising a photosensitive agent dispersed throughout the dentifrice and including whitening hydrogen peroxide or carbamide peroxide, the dentifrice being adapted to be dispersed over a target surface and to transmit the polychromatic electromagnetic radiation, whereby during use a significant portion of the dispersed photosensitive agent over the target surface receives the polychromatic electromagnetic radiation, thus enabling the significant portion of the dispersed photosensitive agent to react.

108. (Currently Amended) The system of claim ~~104~~106, wherein the source of electromagnetic radiation comprises a continuous wave source of electromagnetic radiation.

Application No. 10/624,963  
July 25, 2006  
Page 4

109. (Currently Amended) The system of claim ~~104~~106, wherein the toothbrush comprises bristles and is constructed to direct polychromatic electromagnetic radiation through the bristles toward the cleaning surface.

110. (Currently Amended) The system of claim ~~104~~106, wherein the toothbrush comprises bristles and is constructed to direct polychromatic electromagnetic radiation around the bristles toward the cleaning surface.

111. (Currently Amended) The system of claim ~~104~~106, wherein the dentifrice is a clear gel.

112. (Currently Amended) The system of claim ~~104~~106, wherein the polychromatic electromagnetic radiation consists essentially of a band spanning of wavelengths from 300 to 750 nanometers.

113. Cancelled.

114. (Previously Presented) The system of claim 212, wherein the dentifrice is aqueous and at least a portion of the one or more salt compounds is dissolved in the dentifrice.

115. Cancelled.

116. (Previously Presented) The system of claim 183, wherein the source of electromagnetic radiation comprises a continuous wave source of electromagnetic radiation.

117. (Currently Amended) The system of claim 183, wherein the toothbrush comprises bristles and is constructed to direct the polychromatic electromagnetic radiation through the bristles toward the cleaning surface.

Application No. 10/624,963

July 25, 2006

Page 5

118. (Currently Amended) The system of claim 183, wherein the toothbrush comprises bristles and is constructed to direct the polychromatic electromagnetic radiation around the bristles toward the cleaning surface.

119. (Currently Amended) The system of claim ~~183~~118, wherein the dentifrice is a clear gel.

120. (Currently Amended) The system of claim 183, wherein the polychromatic electromagnetic radiation consists essentially of a band ~~spanning of~~ wavelengths from 300 to 750 nanometers.

121. Cancelled.

122. (Currently Amended) The system of claim ~~213~~107, wherein the whitening compound is hydrogen peroxide or carbamide peroxide.

123. (Currently Amended) The system of claim ~~213~~107, wherein the whitening compound is a peroxy compound.

124. (Currently Amended) The system of claim ~~121~~107, wherein the dentifrice comprises about 1.5% peroxide.

125. (Currently Amended) The system of claim ~~121~~107, wherein the source of electromagnetic radiation comprises a continuous wave source of electromagnetic radiation.

126. (Currently Amended) The system of claim ~~121~~178, wherein the source of electromagnetic radiation comprises a source of polychromatic electromagnetic radiation.

Application No. 10/624,963

July 25, 2006

Page 6

127. Cancelled.

128. (Currently Amended) The system of claim ~~121~~107, wherein the source of electromagnetic radiation comprises a source of monochromatic electromagnetic radiation.

129. (Currently Amended) The system of claim ~~128~~130, wherein the source of electromagnetic radiation comprises a continuous wave source of electromagnetic radiation.

130. (Currently Amended) The system of claim ~~128~~107, wherein the source of ~~monochromatic~~ electromagnetic radiation comprises a light emitting diode.

131. (Currently Amended) The system of claim ~~121~~107, wherein the toothbrush comprises bristles and is constructed to direct the polychromatic electromagnetic radiation through the bristles toward the cleaning surface.

132. (Currently Amended) The system of claim ~~121~~107, wherein the toothbrush comprises bristles and is constructed to direct the polychromatic electromagnetic radiation around the bristles toward the cleaning surface.

133. (Currently Amended) The system of claim ~~121~~107, wherein the dentifrice is a clear gel.

134. Cancelled.

135. (Currently Amended) The cleaning system of claim 214, wherein the dentifrice is aqueous and at least a portion of the one or more salt compounds is dissolved in the dentifrice.

Application No. 10/624,963

July 25, 2006

Page 7

136. (Currently Amended) The system of claim ~~191~~133, wherein the source of electromagnetic radiation comprises a continuous wave source of electromagnetic radiation.

137. (Currently Amended) The system of claim ~~191~~130, wherein the source of electromagnetic radiation comprises a source of polychromatic electromagnetic radiation.

138-140. Cancelled.

141. (Currently Amended) The system of claim ~~139~~133, wherein the source of ~~monochromatic~~ electromagnetic radiation comprises a light emitting diode.

142. (Currently Amended) The system of claim ~~191~~133, wherein the toothbrush comprises bristles and is constructed to direct the polychromatic electromagnetic radiation through the bristles toward the cleaning surface.

143. (Currently Amended) The system of claim ~~191~~133, wherein the toothbrush comprises bristles and is constructed to direct the polychromatic electromagnetic radiation around the bristles toward the cleaning surface.

144. Cancelled.

145. (Currently Amended) The system of claim ~~191~~133, wherein the dentifrice comprises about 1.5% peroxide.

146-148. Cancelled.

149. (Previously Presented) The cleaning system of claim ~~146~~1275, wherein the ~~dentifrice comprises about 1.5% peroxide~~ source of electromagnetic radiation comprises a source of polychromatic electromagnetic radiation.

Application No. 10/624,963

July 25, 2006

Page 8

150. (Currently Amended) The cleaning system of claim ~~146273~~, wherein the electromagnetic radiation is continuous-wave electromagnetic radiation.

151. (Currently Amended) The cleaning system of claim ~~146273~~, wherein the electromagnetic radiation is polychromatic electromagnetic radiation.

152. (Currently Amended) The cleaning system of claim ~~146273~~, wherein electromagnetic radiation is monochromatic electromagnetic radiation.

153. (Currently Amended) The cleaning system of claim ~~152214~~, wherein the electromagnetic radiation is continuous-wave electromagnetic radiation.

154. (Currently Amended) The cleaning system of claim ~~153153~~, wherein the ~~monochromatic~~ electromagnetic radiation is emitted from a light emitting diode.

155. (Currently Amended) The cleaning system of claim ~~146214~~, wherein the toothbrush comprises bristles and is constructed to direct electromagnetic radiation through the bristles toward the cleaning surface.

156. (Currently Amended) The cleaning system of claim ~~146214~~, wherein the toothbrush comprises bristles and is constructed to direct electromagnetic radiation around the bristles toward the cleaning surface.

157. (Currently Amended) The cleaning system of claim ~~146214~~, wherein the dentifrice is a clear gel.

158. Cancelled.

Application No. 10/624,963

July 25, 2006

Page 9

159. (Currently Amended) The cleaning system of claim 216, wherein the dentifrice is aqueous and at least a portion of the one or more salt compounds is dissolved in the dentifrice.

160. (Currently Amended) The cleaning system of claim 199, wherein the electromagnetic radiation is continuous-wave electromagnetic radiation.

161. (Currently Amended) The cleaning system of claim 199, wherein the electromagnetic radiation is polychromatic electromagnetic radiation.

162. (Currently Amended) The cleaning system of claim 161, wherein the electromagnetic radiation is continuous-wave electromagnetic radiation.

163. (Currently Amended) The cleaning system of claim 199, wherein the electromagnetic radiation is monochromatic electromagnetic radiation.

164. (Currently Amended) The cleaning system of claim ~~163~~ 199, wherein the electromagnetic radiation is continuous-wave electromagnetic radiation.

165. (Currently Amended) The cleaning system of claim 164, wherein the ~~monochromatic~~ electromagnetic radiation is emitted from a light emitting diode.

166. (Currently Amended) The cleaning system of claim 199, wherein the toothbrush comprises bristles and is constructed to direct electromagnetic radiation through the bristles toward the cleaning surface.

167. (Currently Amended) The cleaning system of claim 199, wherein the toothbrush comprises bristles and is constructed to direct electromagnetic radiation around the bristles toward the cleaning surface.



Application No. 10/624,963

July 25, 2006

Page 10

168. (Currently Amended) The cleaning system of claim ~~199~~261, wherein the ~~dentifrice~~ is a clear gel source of electromagnetic radiation comprises a source of polychromatic electromagnetic radiation.

169. (Currently Amended) The cleaning system of claim ~~199~~165, wherein the ~~dentifrice~~ comprises about 1.5% peroxide source of electromagnetic radiation comprises a source of polychromatic electromagnetic radiation.

170. Cancelled.

171. (Currently Amended) The ~~method~~ system of claim ~~170~~114, wherein the electromagnetic radiation is continuous-wave electromagnetic radiation.

172-174. Cancelled.

175. (Currently Amended) The ~~method~~ system of claim ~~174~~212, wherein the electromagnetic radiation is continuous-wave electromagnetic radiation.

176. Cancelled.

177. Cancelled.

178. (Currently Amended) The ~~method~~ system of claim ~~176~~212, wherein the ~~monochromatic~~ electromagnetic radiation is emitted from a light emitting diode.

179. (Currently Amended) The ~~method~~ system of claim ~~170~~212, wherein the toothbrush comprises bristles and is constructed to direct electromagnetic radiation through the bristles.

180. (Currently Amended) The ~~method~~ system of claim ~~170~~212, wherein the toothbrush

Application No. 10/624,963

July 25, 2006

Page 11

comprises bristles and is constructed to direct electromagnetic radiation around the bristles.

181. (Currently Amended) The ~~method~~ system of claim ~~170~~212, wherein the dentifrice is a clear gel.

182. (Currently Amended) The ~~method~~ system of claim ~~170~~212, wherein the dentifrice comprises about 1.5% peroxide.

183. (Currently Amended) The system of claim ~~104~~106, wherein the dentifrice comprises an anti-caries agent.

184. (Currently Amended) The system of claim 183, wherein the dentifrice comprises a clear gel that maximizes transmission of the polychromatic electromagnetic radiation therethrough, to thereby maximize an interaction of the clear gel with the polychromatic electromagnetic radiation throughout a thickness of the clear gel.

185. (Previously Presented) The system of claim 183, wherein the anti-caries agent comprises fluoride.

186. (Currently Amended) The system of claim 185, wherein the dentifrice comprises a clear gel that maximizes transmission of the polychromatic electromagnetic radiation therethrough, to thereby maximize an interaction of the clear gel with the polychromatic electromagnetic radiation throughout a thickness of the clear gel.

187-190. Cancelled.

191. (Currently Amended) The system of claim ~~121~~107, wherein the dentifrice comprises an anti-caries agent.

Application No. 10/624,963

July 25, 2006

Page 12

192. (Currently Amended) The system of claim 191, wherein the dentifrice comprises a clear gel that maximizes transmission of the polychromatic electromagnetic radiation therethrough, to thereby maximize an interaction of the clear gel with the polychromatic electromagnetic radiation throughout a thickness of the clear gel.

193. (Previously Presented) The system of claim 191, wherein the anti-caries agent comprises fluoride.

194. (Currently Amended) The system of claim 193, wherein the dentifrice comprises a clear gel that maximizes transmission of the polychromatic electromagnetic radiation therethrough, to thereby maximize an interaction of the clear gel with the polychromatic electromagnetic radiation throughout a thickness of the clear gel.

195-198. Cancelled.

199. (Currently Amended) The cleaning system of claim ~~146~~261, wherein the dentifrice comprises an anti-caries agent.

200. (Currently Amended) The cleaning system of claim 199, wherein the dentifrice comprises a clear gel that maximizes transmission of electromagnetic radiation therethrough, to thereby maximize an interaction of the clear gel with the electromagnetic radiation throughout a thickness of the clear gel.

201. (Currently Amended) The cleaning system of claim 199, wherein the anti-caries agent comprises fluoride.

202. (Currently Amended) The cleaning system of claim 201, wherein the dentifrice comprises a clear gel that maximizes transmission of electromagnetic radiation therethrough, to thereby maximize an interaction of the clear gel with the electromagnetic radiation throughout a thickness of the clear gel.

Application No. 10/624,963  
July 25, 2006  
Page 13

203-206. Cancelled.

207. (Currently Amended) The ~~method~~ system of claim ~~170~~212, wherein the dentifrice comprises an anti-caries agent.

208. (Currently Amended) The ~~method~~ system of claim 207, wherein the dentifrice comprises a clear gel that maximizes transmission of electromagnetic radiation therethrough, to thereby maximize an interaction of the clear gel with the electromagnetic radiation throughout a thickness of the clear gel.

209. (Currently Amended) The ~~method~~ system of claim 207, wherein the anti-caries agent comprises fluoride.

210. (Currently Amended) The ~~method~~ system of claim 209, wherein the dentifrice comprises a clear gel that maximizes transmission of electromagnetic radiation therethrough, to thereby maximize an interaction of the clear gel with the electromagnetic radiation throughout a thickness of the clear gel.

211. Cancelled.

212. (Currently Amended) ~~The system of claim 104, wherein the photosensitive agent comprises~~ A cleaning system for teeth, comprising:

a toothbrush having a cleaning surface, the toothbrush comprising a source of electromagnetic radiation configured to direct polychromatic electromagnetic radiation toward the cleaning surface, wherein the polychromatic electromagnetic radiation consists essentially of wavelengths from 300 to 750 nanometers, wherein an output configuration of the source of electromagnetic energy is relatively low such that electromagnetic radiation can be emitted toward the cleaning surface of the toothbrush during brushing to enhance cleaning of the teeth when used in combination with a dentifrice; and

Application No. 10/624,963

July 25, 2006

Page 14

a dentifrice comprising a photosensitive agent dispersed throughout the dentifrice and including one or more salt compounds, the dentifrice being adapted to be dispersed over a target surface and to transmit the polychromatic electromagnetic radiation, whereby during use a significant portion of the dispersed photosensitive agent over the target surface receives the polychromatic electromagnetic radiation, thus enabling the significant portion of the dispersed photosensitive agent to react.

213. (Currently Amended) The system of claim ~~121~~271, wherein: the ~~photosensitive agent comprises a whitening compound; and the effect is a whitening effect~~ source of electromagnetic radiation comprises a source of polychromatic electromagnetic radiation.

214. (Previously Presented) A cleaning system for teeth, comprising:

a toothbrush having a cleaning surface and a source of electromagnetic radiation constructed to direct electromagnetic radiation toward the cleaning surface, wherein the electromagnetic radiation is at least substantially free of ultraviolet radiation; and a dentifrice comprising a photosensitive agent, which is dispersed throughout the dentifrice, wherein during use the dentifrice is dispersed over a target surface and the dentifrice has a transparency sufficient to transmit the electromagnetic radiation, whereby a significant portion of the dispersed photosensitive agent over the target surface receives the electromagnetic radiation during use of the system, thus enabling the significant portion of the dispersed photosensitive agent to react, wherein the photosensitive agent comprises one or more salt compounds.

215. (Currently Amended) The cleaning system of claim ~~146~~154, wherein: the ~~photosensitive agent comprises a whitening compound; the effect is a whitening effect~~ source of electromagnetic radiation comprises a source of polychromatic electromagnetic radiation.

216. (Currently Amended) A teeth cleaning system, comprising:

- a. a dentifrice comprising a photosensitive agent that reacts substantially only to electromagnetic radiation within a predetermined range wherein:
  - i. the photosensitive agent is dispersed throughout the dentifrice;

Application No. 10/624,963

July 25, 2006

Page 15

- ii. the dentifrice is dispersed over a target surface during use of the system; and
  - iii. the dentifrice has a transparency sufficient to transmit the electromagnetic radiation, whereby a significant portion of the dispersed photosensitive agent over the target surface receives the electromagnetic radiation during use of the system, thus enabling the significant portion of the dispersed photosensitive agent to react; and
- b. a toothbrush having a cleaning surface, the toothbrush comprising a ~~light emitting diode or other~~ source of electromagnetic radiation constructed to direct electromagnetic radiation toward the cleaning surface, wherein the electromagnetic radiation is bound to wavelengths that are substantially within the predetermined range, wherein the photosensitive agent comprises one or more salt compounds.

217. Cancelled.

218. (Currently Amended) The system of claim 183, wherein the dentifrice comprises a clear gel that allows the polychromatic electromagnetic radiation to reach the anti-caries agent throughout the clear gel.

219. (Currently Amended) The system of claim 218, wherein the polychromatic electromagnetic radiation reaches the anti-caries agent to produce an anti-caries effect.

220. (Currently Amended) The system of claim 185, wherein the dentifrice comprises a clear gel that allows the polychromatic electromagnetic radiation to reach the anti-caries agent throughout the clear gel.

221. (Currently Amended) The system of claim 220, wherein the polychromatic electromagnetic radiation reaching the anti-caries agent produces an anti-caries effect.

Application No. 10/624,963

July 25, 2006

Page 16

222. (Currently Amended) The system of claim 191, wherein the dentifrice comprises a clear gel that allows the polychromatic electromagnetic radiation to reach the anti-caries agent throughout the clear gel.

223. (Currently Amended) The system of claim 222, wherein the polychromatic electromagnetic radiation reaches the anti-caries agent to produce an anti-caries effect.

224. (Currently Amended) The system of claim 193, wherein the dentifrice comprises a clear gel that allows the polychromatic electromagnetic radiation to reach the anti-caries agent throughout the clear gel.

225. (Currently Amended) The system of claim 224, wherein the polychromatic electromagnetic radiation reaching the anti-caries agent produces an anti-caries effect.

226. (Currently Amended) The cleaning system of claim 199, wherein the dentifrice comprises a clear gel that allows the electromagnetic radiation to reach the anti-caries agent throughout the clear gel.

227. (Currently Amended) The cleaning system of claim 226, wherein the electromagnetic radiation reaching the anti-caries agent produces an anti-caries effect.

228. (Currently Amended) The cleaning system of claim 201, wherein the dentifrice comprises a clear gel that allows the electromagnetic radiation to reach the anti-caries agent throughout the clear gel.

229. (Currently Amended) The cleaning system of claim 228, wherein the electromagnetic radiation reaches the anti-caries agent to produce an anti-caries effect.

Application No. 10/624,963

July 25, 2006

Page 17

230. (Previously Presented) The system of claim 207, wherein the dentifrice comprises a clear gel that maximizes transmission of electromagnetic radiation to allow the electromagnetic radiation to reach the anti-caries agent throughout the clear gel.

231. (Previously Presented) The system of claim 230, wherein the electromagnetic radiation reaching the anti-caries agent produces an anti-caries effect.

232. (Previously Presented) The system of claim 209, wherein the dentifrice comprises a clear gel that maximizes transmission of electromagnetic radiation to allow the electromagnetic radiation to reach the anti-caries agent throughout the clear gel.

233. (Previously Presented) The system of claim 232, wherein the electromagnetic radiation reaching the anti-caries agent produces an anti-caries effect.

234. (Currently Amended) A cleaning system for teeth, comprising:

a toothbrush having a cleaning surface, the toothbrush comprising a source of electromagnetic radiation configured to direct electromagnetic radiation toward the cleaning surface, wherein an output configuration of the source of electromagnetic energy is relatively low such that electromagnetic radiation can be emitted toward the cleaning surface of the toothbrush during brushing to enhance cleaning of the teeth when used in combination with a dentifrice; and

a dentifrice comprising a photosensitive agent which includes one or more salt compounds and which is dispersed throughout the dentifrice, the dentifrice being adapted to be dispersed at a thickness over the teeth and to maximize a transmission of the electromagnetic radiation therethrough, whereby during use an interaction of a significant portion of the dispersed photosensitive agent with the electromagnetic radiation is maximized throughout the thickness thus enabling the significant portion of the dispersed photosensitive agent to react.



Application No. 10/624,963

July 25, 2006

Page 18

235. (Previously Presented) The cleaning system of claim 234, wherein the photosensitive agent comprises a whitening compound.

236. (Previously Presented) The cleaning system of claim 235, wherein the whitening compound is a peroxy compound.

237. (Previously Presented) The cleaning system of claim 235, wherein the whitening compound is hydrogen peroxide or carbamide peroxide.

238. (Previously Presented) The cleaning system of claim 235, wherein the photosensitive agent comprises a whitening compound that imparts a whitening or an enhanced whitening effect onto the teeth upon receipt of the electromagnetic radiation.

239. (Previously Presented) The cleaning system of claim 234, wherein the dentifrice comprises an anti-caries agent.

240. (Previously Presented) The cleaning system of claim 239, wherein the electromagnetic radiation reaches the anti-caries agent to produce an anti-caries effect.

241. (Previously Presented) The cleaning system of claim 239, wherein the anti-caries agent comprises fluoride.

242. Cancelled.

243. (Previously Presented) The cleaning system of claim 234, wherein the dentifrice is a clear gel.

244. (Previously Presented) The cleaning system of claim 243, wherein the dentifrice comprises clear abrasive particles.

Application No. 10/624,963

July 25, 2006

Page 19

245. (Previously Presented) The cleaning system of claim 234, wherein the dentifrice comprises a clear gel that maximizes transmission of electromagnetic radiation therethrough, to thereby maximize an interaction of the clear gel with the electromagnetic radiation throughout a thickness of the clear gel.

246. (Previously Presented) The cleaning system of claim 234, wherein the dentifrice comprises a clear gel that allows the electromagnetic radiation to reach the photosensitive agent throughout the clear gel.

247. (Previously Presented) The cleaning system of claim 234, wherein the dentifrice comprises clear abrasive particles.

248. (Previously Presented) The cleaning system of claim 234, wherein the electromagnetic radiation comprises polychromatic electromagnetic radiation.

249. (Previously Presented) The cleaning system of claim 248, wherein the polychromatic electromagnetic radiation consists essentially of a band of wavelengths from 300 to 750 nanometers.

250. Cancelled.

251. (Currently Amended) The cleaning system of claim ~~250~~216, wherein the dentifrice comprises an anti-caries agent.

252. (Previously Presented) The cleaning system of claim 251, wherein the anti-caries agent comprises fluoride.

253. (Currently Amended) The cleaning system of claim ~~250~~216, wherein the dentifrice is a clear gel that maximizes transmission of electromagnetic radiation therethrough, to

Application No. 10/624,963  
July 25, 2006  
Page 20

thereby maximize an interaction of the clear gel with the electromagnetic radiation throughout a thickness of the clear gel.

254. (Currently Amended) The cleaning system of claim ~~250~~216, wherein the photosensitive agent comprises a whitening compound.

255. (Previously Presented) The cleaning system of claim 254, wherein the whitening compound is hydrogen peroxide or carbamide peroxide.

256. (Previously Presented) The cleaning system of claim 254, wherein the whitening compound is a peroxy compound.

257. (Currently Amended) The cleaning system of claim ~~250~~216, wherein the source of electromagnetic radiation comprises a source of polychromatic electromagnetic radiation.

258. (Previously Presented) The cleaning system of claim 257, wherein the electromagnetic radiation consists essentially of a band of wavelengths from 300 to 750 nanometers.

259. (Previously Presented) The cleaning system of claim 257, wherein the source of polychromatic electromagnetic radiation comprises a light emitting diode.

260. (Currently Amended) The cleaning system of claim ~~250~~216, wherein the source of electromagnetic radiation comprises a source of monochromatic electromagnetic radiation.

261. (Currently Amended) The cleaning system of claim ~~260~~216, wherein the source of ~~monochromatic~~ electromagnetic radiation comprises a light emitting diode.

262. (Currently Amended) The cleaning system of claim ~~250~~216, wherein the dentifrice comprises clear abrasive particles.

Application No. 10/624,963  
July 25, 2006  
Page 21

263. Cancelled.

264. (Currently Amended) The cleaning system of claim ~~263~~214, wherein the dentifrice comprises an anti-caries agent.

265. (Previously Presented) The cleaning system of claim 264, wherein the anti-caries agent comprises fluoride.

266. (Currently Amended) The cleaning system of claim ~~263~~214, wherein the dentifrice comprises a clear gel that maximizes transmission of electromagnetic radiation therethrough and maximizes an interaction of the ~~whitening~~ photosensitive agent with the electromagnetic radiation throughout a thickness of the clear gel.

267. (Previously Presented) The cleaning system of claim 266, wherein the dentifrice comprises clear abrasive particles.

268. (Currently Amended) The cleaning system of claim 266, wherein the ~~whitening~~ photosensitive agent ~~is~~ comprises hydrogen peroxide or carbamide peroxide.

269. (Currently Amended) The cleaning system of claim 266, wherein the ~~whitening~~ photosensitive agent ~~is~~ comprises a peroxy compound.

270. (Previously Presented) The cleaning system of claim 266, wherein the source of electromagnetic radiation comprises a source of polychromatic electromagnetic radiation.

271. (Currently Amended) The cleaning system of claim ~~263~~214, wherein the source of ~~polychromatic~~ electromagnetic radiation comprises a light emitting diode.

Application No. 10/624,963

July 25, 2006

Page 22

272. (Previously Presented) The cleaning system of claim 271, wherein the electromagnetic radiation consists essentially of a band of wavelengths from 300 to 750 nanometers.

273. (Currently Amended) The cleaning system of claim ~~263~~214, wherein the dentifrice comprises clear abrasive particles.

274. (Currently Amended) The cleaning system of claim ~~263~~214, wherein the source of electromagnetic radiation comprises a source of monochromatic electromagnetic radiation.

275. (Currently Amended) The cleaning system of claim ~~274~~214, wherein the source of ~~monochromatic~~ electromagnetic radiation comprises a light emitting diode.

276. Cancelled.

277. (Currently Amended) The teeth cleaning system of claim ~~276~~105, wherein:  
the ~~transparent~~ dentifrice comprises a dispersed photosensitive agent that reacts substantially only to ~~incident~~ electromagnetic radiation within a predetermined range of wavelengths; and

the ~~incident~~ electromagnetic radiation is bound to wavelengths that are substantially within the predetermined range.

278. (Currently Amended) The teeth cleaning system of claim ~~276~~105, wherein the ~~transparent~~ dentifrice comprises a clear gel that allows the ~~incident~~ polychromatic electromagnetic radiation to reach the dispersed photosensitive agent throughout the clear gel.

279. (Currently Amended) The teeth cleaning system of claim ~~276~~105, wherein the ~~transparent~~ dentifrice comprises an anti-caries agent.

Application No. 10/624,963

July 25, 2006

Page 23

280. (Currently Amended) The teeth cleaning system of claim 279, wherein the ~~incident~~ polychromatic electromagnetic radiation reaching the anti-caries agent produces an anti-caries effect.

281. (Currently Amended) The teeth cleaning system of claim ~~276~~105, wherein the ~~transparent~~ dentifrice comprises a clear gel that maximizes transmission of the ~~incident~~ polychromatic electromagnetic radiation therethrough, to thereby maximize an interaction of the dispersed photosensitive agent with the ~~incident~~ polychromatic electromagnetic radiation throughout a thickness of the clear gel.

282. (Currently Amended) The teeth cleaning system of claim ~~276~~105, wherein the ~~transparent~~ dentifrice comprises clear abrasive particles.

283. (Currently Amended) The teeth cleaning system of claim ~~276~~105, wherein the ~~transparent~~ dentifrice comprises fluoride.

284. (Currently Amended) The teeth cleaning system of claim 283, wherein the ~~transparent~~ dentifrice comprises a clear gel that allows the ~~incident~~ polychromatic electromagnetic radiation to reach the fluoride throughout the clear gel.

285-288. Cancelled.

289. (Currently Amended) The teeth cleaning system of claim ~~287~~105, wherein the polychromatic electromagnetic radiation is emitted from a light emitting diode.

290. (Currently Amended) The teeth cleaning system of claim ~~276~~105, wherein ~~incident~~ polychromatic electromagnetic radiation is monochromatic electromagnetic radiation.

291. Cancelled.

Application No. 10/624,963

July 25, 2006

Page 24

292. Cancelled.

293. (Currently Amended) The ~~method~~ teeth cleaning system of claim ~~292~~105, wherein the ~~electromagnetic radiation-emitting~~ toothbrush emits electromagnetic radiation wavelengths consisting essentially of non-ultraviolet radiation during brushing.

294. (Currently Amended) The ~~method~~ teeth cleaning system of claim ~~292~~293, wherein the dentifrice comprises an anti-caries agent.

295. (Currently Amended) The ~~method~~ teeth cleaning system of claim 294, wherein the anti-caries agent comprises fluoride.

296. (Currently Amended) The ~~method~~ teeth cleaning system of claim 294, wherein the dentifrice comprises a clear gel that maximizes transmission of the polychromatic electromagnetic radiation to allow the polychromatic electromagnetic radiation to reach the anti-caries agent throughout the clear gel and to produce an anti-caries effect.

297. (Currently Amended) The ~~method~~ teeth cleaning system of claim ~~292~~293, wherein the dentifrice comprises is clear component that operates to facilitate a maximal transmission of the polychromatic electromagnetic radiation through the dentifrice to allow the polychromatic electromagnetic radiation to reach the cleaning or lightening photosensitive agent throughout the clear gel.

298. (Currently Amended) The ~~method~~ teeth cleaning system of claim ~~292~~293, wherein the dentifrice is a clear gel.

299. (Currently Amended) The ~~method~~ teeth cleaning system of claim ~~292~~293, wherein the dentifrice comprises clear abrasive particles.

300. Cancelled.

Application No. 10/624,963

July 25, 2006

Page 25

301. (Currently Amended) The ~~method~~ teeth cleaning system of claim ~~292~~293, wherein the dentifrice comprises a clear gel that maximizes transmission of the polychromatic electromagnetic radiation therethrough, to thereby maximize an interaction of the cleaning or lightening photosensitive agent with the polychromatic electromagnetic radiation throughout a thickness of the clear gel.

302. (Currently Amended) The ~~method~~ teeth cleaning system of claim ~~292~~293, wherein the polychromatic electromagnetic radiation consists essentially of wavelengths within a range of 300 to 750 nanometers.

303. Cancelled.

304. (Currently Amended) The ~~method~~ teeth cleaning system of claim 303, wherein the polychromatic electromagnetic radiation is emitted from a light emitting diode.

305. (Currently Amended) The ~~method~~ teeth cleaning system of claim 303, wherein the electromagnetic radiation consists essentially of a band of wavelengths from 300 to 750 nanometers.

306. (Currently Amended) The ~~method~~ teeth cleaning system of claim ~~292~~293, wherein the electromagnetic radiation is monochromatic electromagnetic radiation.

307. Cancelled.

308. (New) The cleaning system of claim 214, wherein the electromagnetic radiation consists essentially of a band of wavelengths from 300 to 750 nanometers.

309. (New) The cleaning system of claim 214, wherein the dentifrice comprises a whitening compound.